Maryland Energy Administration EmPOWERing Clean Energy Communities Fiscal Year 2014 Low-to-Moderate Income Competitive Grant Program Instruction Document

Overview

In Fiscal Year 2014, the Maryland Energy Administration (MEA) has \$5.5 million in EmPOWERing Clean Energy Communities Competitive grant funds available for innovative ideas directed at helping communities, neighborhoods, or entire buildings available through the Strategic Energy Investment Fund (SEIF) for entities that serve Maryland's low-to-moderate income households. This competitive program is open to the whole state, and after our review team has made its recommendations the MEA will issue awards ranging from \$40,000 up to \$1,000,000.

The EmPOWER Clean Energy Communities grants will be competitively awarded to energy efficiency projects that generate significant energy savings, with the financial benefits of the energy savings being passed on to Maryland's low-to-moderate income residents. <u>Projects that maximize energy savings and the number of low-to-moderate income residents served will receive grant funding priority.</u> The focus for this competitive program is to reach entire areas (communities, neighborhoods, or entire buildings) with energy efficiency upgrades.

Funding from Other Sources

Grants may be made in conjunction with, or in addition to, financial assistance provided through other State, federal, or private programs. In all cases, MEA grant funds must supplement, and not supplant, other funding sources. While matching funds are not required, Grantees are encouraged to make a contribution in order to maximize the amount of energy savings achieved through the project. Matching funds can include:

- 1) Cash
- 2) In-kind services
- 3) Equipment, labor, or materials
- 4) EmPOWER Maryland energy efficiency utility incentives

EmPOWER Maryland incentives

As part of the EmPOWER Maryland legislation passed in 2008, Maryland's five largest electric utilities offer incentives for a selection of energy efficiency measures. MEA encourages grant applicants to pursue the EmPOWER Maryland energy efficiency programs being offered by the electric utility in their service territory, if applicable, as these incentives should enable grantees to expand the size of their respective energy projects, installing more energy efficiency measures and/or serving more low-to-moderate income households. Each electric utility offers slightly different energy efficiency programs. The specific energy efficiency measures being offered are outlined on their individual websites:

Potomac Edison: https://www.firstenergycorp.com/save_energy/save_energy_maryland.html

BGE: www.bgesmartenergy.com

Delmarva Power: http://www.delmarva.com/energy/conservation/mdinformation/

Pepco: http://www.pepco.com/energy/conservation/meiin/

SMECO: http://www.smeco.coop/save/

Should a grantee decide to take advantage of an EmPOWER Maryland energy efficiency program being offered by an electric utility, <u>please note that MEA will only reimburse for the cost of the energy efficiency measures minus the efficiency rebate</u>. In addition, grantees will need to share incentive information with MEA as part of the grant reporting process. This will enable MEA to ensure that energy savings estimates are not being double-counted towards the energy reduction goals established by the EmPOWER Maryland legislation.

All grant funding leveraged from sources other than MEA, including incentives obtained through participating electric utility rebate programs, should be summarized in *Section 24: Total Funding Match/Leveraged Funds* of the grant application.

Grant Project Period

MEA anticipates that most grant agreements will be available for signature by <u>the end of February 2014</u>. For planning purposes, MEA requests that all construction activities be designed to be completed by <u>September 30, 2014</u> with all invoices and project reports submitted to MEA by no later than <u>October 31, 2014</u>.

Eligible Applicants

The following organization types are eligible to receive funding through the 2013 EmPOWERing Clean Energy Communities low-to-moderate income grant program:

- Local governments (counties and/or municipalities)
- Incorporated non-profit organizations

<u>Non-profit organizations</u> should include a description of their organization in the grant application. Additionally, proof of incorporation should also be included as an attachment to the grant application.

Grant Income Requirements

Grant funds <u>must</u> be used to fund energy efficiency projects that benefit Maryland's low-to-moderate income population. For the purposes of this application, low and moderate income households are defined as households with total household incomes that are less than 60% and 85%, respectively, of the median income for each Maryland County. Income limits can be found on the Maryland Department of Housing and Community Development (DHCD) website at

http://dhcd.maryland.gov/website/programs/prhp/Documents/2013_MD_Income_Limits.pdf. 60% income limits can be found on pages 9 and 10, 85% income limits can be found on pages 17 and 18.

Examples:

4 person household in Allegany County	\$45,720	
	Ψ-3,720	\$64,750
2 person household in Anne Arundel County*	\$41,100	\$58,200
* Anne Arundel County is located in the Baltimore PMSA.		

Grant applicants do not have to receive the energy benefits directly (for instance, a non-profit organization could apply for a grant to make energy efficiency improvements in a senior living facility where residents are responsible for paying utility bills).

As part of the grant requirements, Grantees will be responsible for verifying that program participants are in compliance with the established income limits. Section 37: Eligibility Verification of the grant application requires grant applicants to describe the process that will be used to verify that all participants and/or beneficiaries comply with the low-to-moderate income requirements.

Allowable Grant Measures

The majority of Grant funds should be used directly on energy efficiency measures, including the purchase and installation of machinery and/or equipment. A limited amount of Grant funding may be used for the costs of technical assessments, licenses, engineering, and/or training, after first being approved by MEA.

Grant Restrictions & Limitations

- The State of Maryland has adopted the 2012 International Energy Efficiency Code (IECC). All projects funded through the EmPOWERing Clean Energy Communities grant program should comply with the 2012 IECC code.
- In general, MEA will not provide more than \$5,000 in grant funds per home energy retrofit. For home energy retrofits necessitating an HVAC upgrade, MEA will not provide more than \$8,000 in funds per home energy retrofit.
- For <u>appliance replacements</u>, all appliances funded under this grant must be ENERGY STAR qualified. MEA will not fund the replacement of any appliances that are not available in an ENERGY STAR version.
 - For any <u>refrigerator</u> replaced using EmPOWERing Clean Energy Communities grant funding, the maximum reimbursable cost per ENERGY STAR refrigerator is \$800.
 - For <u>water heaters</u>, ENERGY STAR no longer qualifies electric tank water heaters and electric instantaneous water heaters. For this reason, MEA will no longer fund electric tank water heater or electric instantaneous water heater replacements. ENERGY STAR qualified heat pump water heaters and natural gas water heater replacements are still eligible for grant funding.
- For new home construction projects, MEA will only fund the incremental purchase cost of upgrading to a higher level of energy efficiency (i.e. MEA will pay the purchase cost of upgrading from a baseline efficiency heat pump (SEER 13) to a higher efficiency heat pump (SEER 14.5+)). MEA will not pay for the cost of installing energy efficiency measures in new construction projects unless the grantee can explain why the cost of installing the energy efficiency measure is more expensive than the costs of installing a baseline efficiency measure. If you are proposing a new construction project, please provide MEA with cost estimates for both the energy efficient technology and the baseline efficiency technology in your grant application.
- To comply with the Strategic Energy Investment Fund statute, low income residents cannot be charged for participation in programs that receive EmPOWERing Clean Energy Communities low-to-moderate income grant awards.

- Renewable energy technologies are not eligible for the EmPOWERing Clean Energy Communities grant program. Information on MEA programs that provide renewable energy incentives can be found at http://www.energy.state.md.us/Business/cleanenergygrants/index.html and http://www.energy.state.md.us/Residential/cleanenergygrants/index.html.
- In general, MEA does not normally approve projects that involve fuel switching.
- MEA encourages all applicants to focus on residential households that are <u>ineligible</u> for assistance through the Weatherization Assistance Program (WAP) or the EmPOWER Maryland Low Income Energy Efficiency Program (LIEEP) run by the Department of Housing and Community Development (DHCD).

Administrative Costs

Administrative costs are capped at a maximum of 10% of the Grant award. MEA defines administrative costs to be non-energy related costs (e.g. rent, utilities, etc.)

If you are planning on requesting administrative costs, please be sure to clearly identify the amount of administrative funds being requested in *Section 30: Cost Breakdown* of the EmPOWERing Clean Energy Communities grant application. In *Section 31: Administrative Costs* of the application, Grant applicants should explain how administrative costs will be used in association with their proposed Grant project.

Health and Safety Repairs

For projects involving whole home energy retrofits (such as Home Performance with ENERGY STAR projects), non-energy related health and safety repairs that enable energy efficiency upgrades are capped at \$1000 per home. The cost of the health and safety repairs must be included in the \$5,000 per house maximum budget (or \$8,000 per home maximum budget for any home receiving an HVAC upgrade).

Grant Evaluation Criteria

On a county-by-county basis, proposals will be evaluated using three primary criteria:

- Annual Energy Savings per dollar of MEA investment- MEA is looking for projects that maximize
 potential energy savings. If an applicant can access matching funds, the ratio of energy savings to
 dollar of MEA investment will improve.
- Impact on Maryland's low-to-moderate income residents- MEA is looking for projects that maximize the number of low-to-moderate income residents that can be served with EmPOWERing Clean Energy Communities grant funding. MEA will be evaluating this metric based on the number of low-to-moderate income individuals/households that will benefit from grant funds over a 15 year period, the standard life of many energy measures.

Formula: (# of households) * [(# if individuals/household)/(duration in home)] * 15 years

For example:

- An upgrade to a homeless shelter that is able to house 5 individuals with most people staying approximately one year will serve an estimated 75 individuals over the life of the project.

1 household * [(5 individuals/household)/(1 year)] * 15 years =

75 individuals will benefit over the 15 year period

- An upgrade to a residential, privately owned home that contains a family of four will benefit four individuals (or 1 household) over the life of the project. It is assumed that the family will not relocate during this timeframe.

1 household * [(4 individuals/household)/15 years)] * (15 years) =

4 individuals will benefit over the 15 year period

Applicant's willingness and ability to deliver energy upgrades to households that are not
eligible for assistance through other channels. In particular, MEA is looking for applications that
propose methods to target households unable to able to access the Department of Housing and
Community Development's Weatherization Assistance Program (WAP) and EmPOWER Maryland Low
Income Energy Efficiency Program (LIEPP) programs.

In addition to the primary criteria shown above, MEA will also be considering the following secondary criteria:

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- Best practices/showcase project: Does the project demonstrate energy efficiency best practices and have strong potential as a model for others?
- Project feasibility: Can the proposed project be completed in the available construction window?
 - a. The ability of project construction to be completed by September 30, 2014 with all invoices submitted to MEA by no later than October 31, 2014.
- Accuracy of energy savings and cost information for the project:
 - a. How accurate are the applicant's estimates?
 - b. Are assumptions behind the numbers clearly stated, to enable the review team to evaluate the project?
- Innovative technologies: How creative and novel are the technologies employed in the proposed project?
- MEA also reserves the right to select applications that allow for a broad diversity in the project portfolio.
 Factors such as energy measure type and geographic region will be considered.

Energy Savings Estimates

In order for a grant to be evaluated favorably, each application must include detailed energy savings estimates. To simplify energy savings calculations for program applicants during fiscal year 2014, MEA has developed some simple energy assumptions for residential energy projects using formulas outlined in the Mid-Atlantic Technical Reference Manual (TRM), version 2. The TRM was developed by the Northeast Energy Efficiency Partnership (NEEP) to standardize energy savings assumptions across the Mid-Atlantic region. The residential energy assumptions are outlined on the following two pages.

¹ A copy of the Mid-Atlantic TRM version 2 can be downloaded from http://www.neep.org/Assets/uploads/files/emv/emv-products/A5_Mid_Atlantic_TRM_V2_FINAL.pdf. MEA used the TRM formulas to develop a preliminary estimate of potential energy savings, allowing MEA to make an "apples to apples" comparison of proposed energy measures. If you

For commercial energy projects and for residential energy measures not quantified in this document, grant applicants can site alternative sources of energy estimates including, but not limited to, energy audits completed by a qualified auditor, online calculators maintained by the U.S. Department of Energy (DOE), ENERGY STAR calculators, etc.

For all alternative energy savings estimates, please be sure to site the source of your estimate and provide all necessary back-up documentations (e.g. website URLs, formulas, etc.).

Residential Energy Assumptions (based on the Mid-Atlantic Technical Reference Manual, version 2)

Lighting & Appliance Measures

Replacement of an incandescent bulb with a CFL: $\Delta kWh/year = 30$

Replacement of an incandescent bulb with a LED: $\Delta kWh/year = 71$

Replacement of an existing refrigerator with an ENERGY STAR refrigerator \(\Delta kWh/year = 117 \)

Replacement of an existing clothes washer with an ENERGY STAR clothes washer:

a) Using hot water produced by electricity: $\Delta kWh/year = 153$

b) Using hot water produced by natural gas: Δ MMBTU/year = 0.42

c) Using hot water produced by oil: Δ MMBTU/year = 0.05

d) Using hot water produced by propane: Δ MMBTU/year = 0.01

HVAC Measures

Replacement of an existing air conditioning unit with an ENERGY STAR AC unit: \(\Delta kWh/year = 101 \)

Replacement of an air source heat pump with an ENERGY STAR heat pump: $\Delta kWh/year = 297$

Replacement of an existing natural gas boiler with an ENERGY STAR gas boiler: Δ MMBTU/year = 4.56

Replacement of a gas furnace with an ENERGY STAR condensing gas furnace: ΔMMBTU/year = 8.6

Replacement of an existing room AC unit with an ENERGY STAR room AC unit: $\Delta kWh/year = 121$

Installation of a programmable thermostat (fossil fuel heating savings only)²: \triangle MMBTU/year = 3.41

Duct sealing- cooling (central AC or heat pump): $\Delta kWh/year = 212$

Duct sealing- heating (electric heat pump): $\Delta kWh/year = 467$

Duct sealing – heating (electric resistance heat): $\Delta kWh/year = 934$ Duct sealing- fossil fuel heating: $\Delta MMBTU/year = 8.2$

have alternative energy savings calculations, please include these energy savings estimates as well, clearly describing the source of the alternative energy savings calculations.

² The TRM does not estimate energy savings associated with the use of program thermostats associated with electrical heating and/or cooling.

Air Sealing Measures:

Air sealing – air conditioning savings: $\Delta kWh/year = 309$

Air sealing- heat pump (heat only) savings: $\Delta kWh/year = 943$

Air sealing- electric resistance heat savings: $\Delta kWh/year = 1888$

Air sealing- fossil fuel heat savings: $\Delta MMBTU/year = 9.76$

Attic/Roof/Ceiling Insulation Measures:

Attic/roof/ceiling insulation – air conditioning load savings: $\Delta kWh/year = 28$

Attic/roof/ceiling insulation – electric heat pump load savings: ΔkWh/year = 470

Attic/roof/ceiling insulation – electric resistance heat load savings: $\Delta kWh/year = 940$

Attic/roof/ceiling insulation – fossil fuel heat load savings: $\Delta MMBTU/year = 4.86$

Water Related Measures:

Low flow showerhead:

a) In a home with an electric domestic water heater: ΔkWh/year = 168

b) In a home with a fossil fuel domestic water heater: $\Delta MMBTU/year = 0.75$

Faucet aerators:

a) In a home with an electric domestic water heater: $\Delta kWh/year = 29$

b) In a home with a fossil fuel domestic water heater: $\Delta MMBTU/yr = 0.128$

Domestic hot water tank wrap³: $\Delta kWh/year = 79$

Domestic hot water pipe insulation:

a) In a home with an electric domestic water heater: $\Delta kWh/year = 95$

b) In a home with a fossil fuel domestic water heater: $\Delta MMBTU/yr = 0.425$

Installation of an ENERGY STAR high efficiency gas storage water heater: Δ MMBTU/year = 3.0

Installation of an ENERGY STAR gas condensing water heater:

ΔMMBTU/year = 5.9

Installation of an ENERGY STAR whole home tankless water heater:

ΔMMBTU/year = 6.3

³ In a home containing an electric hot water heater that is not already well insulated.

Sample Energy Savings Calculations

A couple of sample energy calculations are provided below. Each grant application should include a similar breakdown of estimated energy savings, by technology, in *Section 26: Annual Energy Savings*. Lengthy calculations can be included as a separate attachment referenced in the application.

Example: A grant applicant proposes to complete a multi-family building upgrade. The applicant is aiming for more than 20% energy savings to have it qualify as a deep-energy retrofit.

- If the applicant has an audit then the saving determinations and baseline can be based on the audit please attach the audit to your application
 - o If not, an audit will be the starting point should the applicant receive an award.
- The applicant does not have an audit and needs to determine a baseline for the energy savings
 - The applicant is able to provide at least the most recent (12) consecutive months of electric bills please submit the bills
 - This determines the baseline from which the savings can be determined
 - Total annual energy consumption for last year
 - · Total annual energy cost for last year
 - Annual utility rate used (for savings calculations)
 - The applicant is unable to submit a year's worth of utility bills HOWEVER is able to make an assumption on the buildings energy requirements
 - The assumption(s) should be clearly stated on the application
- The applicant is able determine that the entire building's occupants meet the program's income requirements.
 - It is possible that not all of the buildings tenants meet the program income requirements but the upgrades on the eligible tenants can still save 20% of the buildings energy requirements and qualify as a deep energy retrofit
- The multi-family building has 10 units. The units have gas furnaces and water heaters:
 - o All 10 in this hypothetical example fall within the program's income requirements
- Each unit receives the same upgrades
 - These measures shown below are for illustrative purposes only and may or may not result in a 20% energy savings reduction.

For each electric home: Air sealing – air conditioning savings:	ΔkWh/year = 309		
Replacement of an existing room AC unit with an ENERGY STAR room AC unit: ΔkWh/year = 121			
Air sealing- fossil fuel heat savings:	□MMBTU/year = 9.76		
Installation of an ENERGY STAR gas condensing water heater:	□MMBTU/year = 5.9		
Low flow showerhead	□MMBTU/year = 0.75		
Faucet aerators (2 per unit)	□MMBTU/year = 0.128 *2		
Replacement of an incandescent bulb with a CFL:	ΔkWh/year = 30 * 5 CFLs/home		
Attic/roof/ceiling insulation – air conditioning load savings:	ΔkWh/year = 28		
Attic/roof/ceiling insulation – fossil fuel heat load savings:	□MMBTU/year = 4.86		
Replacement of a gas furnace with an ENERGY STAR condensing gas furnace: MMBTU/year = 8.6			

Total anticipated electricity savings per home: (309+121+150+28) = 608 * 10 = 6080 kWh/year

Total anticipated natural gas savings per home: (9.76+5.9+.75+.256+4.86) = 21.526 * 10 = 215.26 MMBTU/year

Total anticipated energy savings (entire project) = 6080 kWh/year and 215.26 MMBTU

Example: A grant applicant proposes to complete cool roofs on 20 row houses.

- The 20 units are in need of a new roof
- The new roof will be ENERGY STAR labeled
 - http://www.energystar.gov/productfinder/product/certified-roof-products/
- The savings were determined using the US Department of Energy's Cool Roof Calculator
 - http://web.ornl.gov/sci/roofs+walls/facts/CoolCalcEnergy.htm

The applicant submits copies of the ENERGY STAR roofing material they plan to use with a bid from a contractor for the project. The applicant also submits copies of the calculator results.

It is also possible that this project could be included as a part of other energy efficiency upgrades for these 20 homes. In this case the other measures would also be included (see example above).

Application Submission

Please use the grant application entitled "Maryland Energy Administration EmPOWERing Clean Energy Communities Low-to-Moderate Income Grant Program- FY 2014". This document can be found on the Maryland Energy Administration EmPOWERing Clean Energy Communities Low-to-Moderate Income Grant Program webpage. Additional supporting documents can be attached as necessary.

Applications must be submitted to the Maryland Energy Administration by Saturday, November 30th, 2013.

For any project occurring in multiple counties, a separate application must be submitted for each county. Combined applications for multiple counties will not be evaluated.

Instructions for Submitting Applications:

Applications should be submitted via email to the Maryland Energy Administration at

EmPOWERMD.LMI@sra.com

All applications should meet the following criteria:

- All files should be saved in PDF or Word 1997-2003 format.
- All files sent over to MEA should be less than 10 MB in size. Files in excess of 10 MB may face difficulty getting through MEA's email system.
- If you are going to submit your application in parts, please number all of your email submissions (Part 1 of 3, Part 2 of 3, etc.) so that we can ensure the entire application is received by MEA.
- If you are submitting grant applications for multiple counties, please be sure to include the name of the County in the email's subject line.

No applications will be accepted after the deadline.

MEA will send an email confirming receipt of your application within 24 hours of application submission. If you do not receive a confirmation email within 24 hours of application submission, please contact MEA to ensure that your application was received.

Grantee Responsibilities

Grant Agreement:

Before starting work, each grantee will need to first enter into a grant agreement with MEA. Depending on available funding levels and the type of measures proposed, grant applications may not be funded exactly as written in the original grant proposal.

Grant Reporting:

Grantees are responsible for submitting the following reporting documents to the Maryland Energy Administration, as a condition of the grant award:

- 1) Grant timeline(s)
- 2) Monthly Grant Progress Reports
- 3) Monthly Energy Metrics Worksheet (when applicable)
- 4) Monthly Grant Expenditure Summary Report (when applicable)

Monthly Grant Progress Report

Once the Grant agreement has been signed, Grantees are required to submit a grant progress report each month until all grant funds have been expended. Grant progress reports are due to MEA by the end of the next month (for example, the grant report for January 2013 should be submitted to MEA by February 28th, 2013).

Monthly Energy Metrics Worksheet

For any month that a grantee completes the installation of energy measures, the grantee is required to complete the monthly energy metrics worksheet. The information submitted on this worksheet will enable MEA to estimate the energy savings associated with each project, allowing these energy savings to be counted towards the State's energy goals. MEA recommends that all potential grantees review the attached Monthly Energy Metrics Worksheet in order to fully understand the energy reporting requirements of this grant program.

Monthly Grant Expenditure Summary Report

For any month that a grantee is submitting a reimbursement request to MEA, the invoice should be accompanied by the Monthly Grant Expenditure Summary Report. This report will detail how the grant reimbursement request was calculated by the Grantee.

Grant Invoicing:

All EmPOWERing Clean Energy Communities grants will be distributed through a reimbursement process. The Grantee will need to provide an invoice, as well as invoice supporting documentation (e.g. copies of receipts and invoices), to MEA in order to receive grant funds. Invoices must be submitted to MEA on Grantee letterhead or using the MEA-generated *Grantee Invoice Template*. The invoice should also list the Grantee's federal tax identification number and MEA grant number. Once all required invoice and reporting documentation has been received and approved by MEA, Grantees can expect to receive reimbursement in approximately 30 days.

Examples of all grant reporting and invoicing forms can be found at the end of this EmPOWERing Clean Energy Communities grant instructions document.

Historical Preservation:

In order to comply with the National Historic Preservation Act of 1966, all buildings (including individual homes) being updated using an EmPOWERing Clean Energy Communities low-to-moderate income grant must first be reviewed to ensure that the proposed grant project will not have any "adverse effects" on a historic property. Grant recipients will be required to provide MEA with documentation from the Maryland Historical Trust, or other qualified historian or historic organization, showing that the proposed project will have "no adverse effect" on historic properties.

Additional information on the historical preservation review process can be found on the Maryland Historical Trust's website at http://mht.maryland.gov/governments.html.

Liability Insurance:

Comprehensive third-party liability insurance is expected to be maintained for all work funded by Grant funds. MEA must be named as an additional insured. The insurance provided shall include, but not be limited to, insurance protecting MEA from bodily injury and property damage, including, but not limited to all workers' compensation insurance, and errors and omissions. All insurance certificates must be maintained in Grantee files and be made available upon request by MEA.

Licensing:

Grantees must ensure that contractors working on projects funded under this program comply with all necessary state and local licensing requirements, including Maryland Home Improvement Commission (MHIC) licensing, as appropriate.

Procurement:

In order to ensure that Grant funds are being used properly, MEA is requesting that each potential Grantee provide a brief summary of their organization's procurement policy and/or practices in *Section 35*: *Procurement Policy and/or Practices* of the grant application.

Additional Funds

Because the Strategic Energy Investment Fund (SEIF) is funded in part through the quarterly auction of carbon allowances, additional grant funding occasionally becomes available later in the fiscal year after the initial program announcement has been made. If your organization has the capability and willingness to take advantage of additional grant funding that <u>may</u> become available, please indicate this capability in *Section 36:* Additional Funds of the grant application. Please note that any additional funding will need to be used on projects that are consistent with your original grant application.

Grant Conditions

As a condition of the grant award, all grant recipients must agree to not discriminate in any manner against an employee or grant beneficiary because of race, color, religion, creed, age, sex, marital status, national origin, ancestry, or disability of a qualified individual with a disability.

Questions

Grant program questions should be directed to MEA Program Managers Alec Fields (<u>afields@energy.state.md.us</u> or 410-260-2630) or Dean Fisher (<u>dfisher@energy.state.md.us</u> or 410-260-2605).